



THE DATASHEET OF FS1B

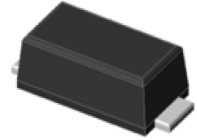


Features

- Low V_F schottky barrier rectifiers
- Low profile - typical height 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



RoHS
COMPLIANT



Package: eSGA
(SOD-123FL)

Applications

For use in fast switching in RF module, lighting, cell phone, portable devices, power supply and other consumer applications.

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V _{RMS}	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	60	100	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I _{FSM}	30.0							A
Operation Junction Temperature Range	T _J	- 55 to + 150							°C
Storage Temperature Range	T _{STG}	- 55 to + 150							°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum Instantaneous Forward Voltage	I _F =0.5A, T _A =25°C	V _F	0.40	0.45	0.55	0.75	0.80			V
	I _F =1 A, T _A =25°C		0.50		0.70	0.81	0.90			
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	200	200	200	150	200			μA
	T _A =125°C		10	30	20					
Typical Thermal Resistance ¹⁾	Junction to Ambient	R _{θJA}	90							°C/W
	Junction to Case	R _{θJC}	60							
	Junction to Mount	R _{θJM}	20							

Note:1) The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

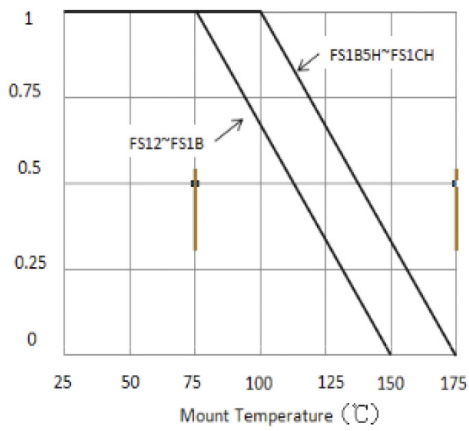


Figure 1. Forward Current Derating Curve

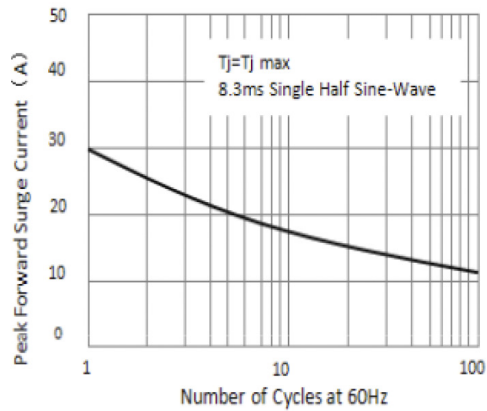


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

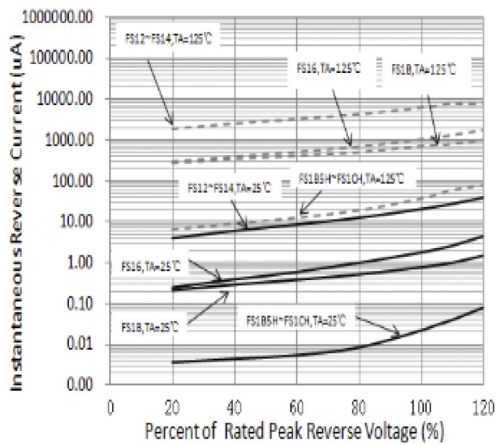


Figure 3. Typical Instantaneous Reverse Characteristics

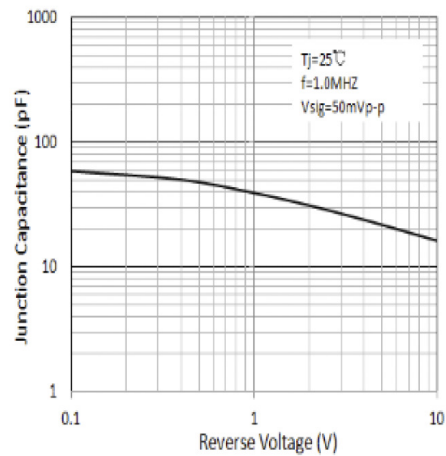


Figure 4. Typical Junction Capacitance

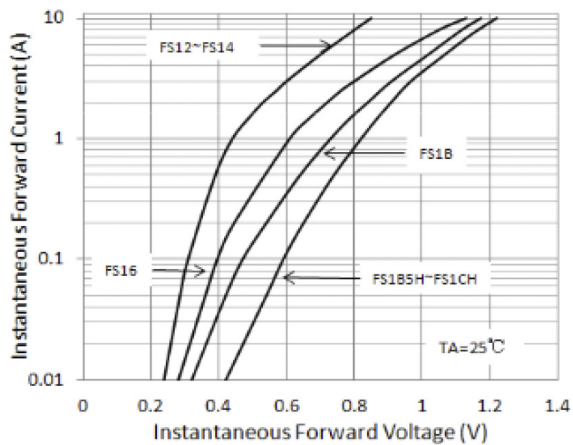
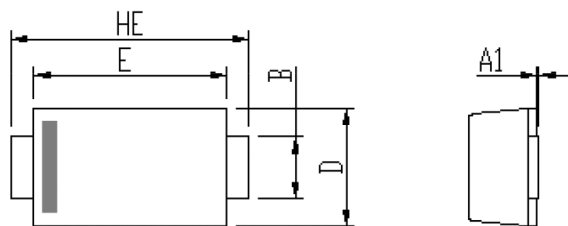


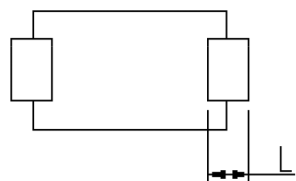
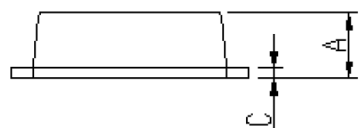
Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions

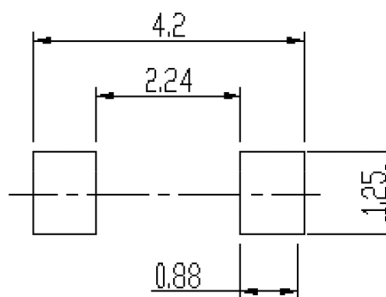
eSGA (SOD-123FL)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154



Soldering footprint

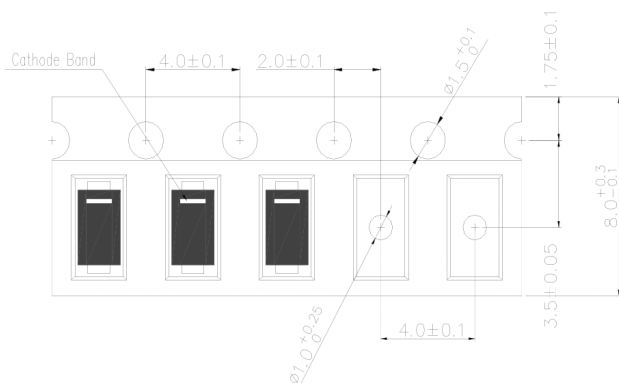


Packing Information

Packing quantities



3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Spec



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